



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/039,982	10/19/2001	Chad Nelson	12477-009001	8775

26191 7590 11/02/2004

FISH & RICHARDSON P.C.
3300 DAIN RAUSCHER PLAZA
60 SOUTH SIXTH STREET
MINNEAPOLIS, MN 55402

EXAMINER

FONTAINE, MONICA A

ART UNIT	PAPER NUMBER
----------	--------------

1732

DATE MAILED: 11/02/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/039,982	Applicant(s) NELSON ET AL.	
	Examiner Monica A Fontaine	Art Unit 1732	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 August 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) 1-12 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 13-26 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 October 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

This office action is in response to the Paper filed 16 August 2004.

In view of applicant's arguments, the previous rejections have been withdrawn.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 13-17, 19, and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bordener (U.S. Patent 5,766,500), in view of Gray (U.S. Patent 5,316,715). Regarding Claim 13, Bordener shows the method for forming panel structures (Abstract), comprising providing a panel mold element including a generally planar molding surface and distal edges (Column 2, lines 16-19), at least one edge member disposed on said generally planar molding surface (Column 2, lines 18-19), and at least one complimentary adjustable edge member disposed on said generally planar molding surface (Column 2, lines 22-23), said generally planar molding surface and edge members cooperatively defining at least a portion of a panel mold cavity (Column 2, lines 37-44); introducing a resin into said mold cavity (Column 2, lines 45-46); and removing the panel structure from the mold (Column 7, lines 16-18). Bordener does not teach heating the resin. Gray shows that it is known to make a planar element including heating the resin so that it conforms to the mold cavity (Column 5, lines 62-63) and cooling the mold

Art Unit: 1732

element (Column 6, lines 55-57). Gray and Bordener are combinable because they are concerned with a similar technical field, namely, molding planar articles. It would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made to use Gray's heating and cooling steps in Bordener's molding method in order to insure proper curing of the molding material.

Regarding Claim 14, Bordener shows the process as claimed as discussed in the rejection of Claim 13 above, including a method further comprising adjusting at least one adjustable member to alter the dimensions of the mold cavity (Column 2, lines 37-44), meeting applicant's claim.

Regarding Claim 15, Bordener shows the process as claimed as discussed in the rejection of Claim 13 above, including a method wherein said at least one adjustable member is frictionally engaged with said mold element (Column 2, lines 37-39), meeting applicant's claim.

Regarding Claim 16, Bordener shows the process as claimed as discussed in the rejection of Claim 13 above, but he does not show a specific resin. Gray shows that it is known to carry out a method of making a planar article, wherein the resin is a thermoplastic (Column 1, lines 22-25). It would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made to use Gray's thermoplastic as Bordener's molding material in order to obtain an article having thermoplastic characteristics.

Regarding Claim 17, Bordener shows the process as claimed as discussed in the rejection of Claim 13 above, including a method wherein the mold element includes two adjustable members and two fixed members and wherein the adjustable members and fixed members are rail members (Column 6, lines 7-46), meeting applicant's claim.

Regarding Claim 19, Bordener shows the process as claimed as discussed in the rejection of Claim 13 above, but he does not show a heating element. Gray shows that it is known to carry out a method of making a planar article, wherein the mold element is heated by an oven (Column 3, lines 62-63). It would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made to use Gray's oven to heat the resin in Bordener's molding process in order to insure proper processing of the molding material.

Regarding Claim 20, Bordener shows the process as claimed as discussed in the rejection of Claim 13 above, but he does not show a specific molding apparatus. Gray shows that it is known to carry out a method of making a planar article wherein the mold element is installed in a rotomolding apparatus (Column 5, lines 19-37). It would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made to use Gray's rotomolding apparatus to carry out Bordener's molding process in order to provide an even distribution of the molding material throughout the mold cavity.

Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bordener and Gray, as applied to claim 13 above, further in view of Gustavel et al. (U.S. Patent 5,326,523). Bordener shows the process as claimed as discussed in the rejection of Claim 13 above, but he does not show inserting a trim member. Gustavel et al., hereafter "Gustavel," show that it is known to carry out a method of making a planar article, comprising the step of inserting into the mold element a trim member that spans a gap between an adjustable member and a fixed member, such that the trim member helps define the mold cavity and is integrally molded into the panel structure (Column 3, lines 40-53). Gustavel and Bordener are combinable because they

Art Unit: 1732

are concerned with a similar technical field, namely, methods of molding generally planar articles. It would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made to use Gustavel's trim piece in Bordener's and Gray's molding process in order to provide extra decoration to the final product.

Claims 21-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gray, in view of Swain (U.S. Patent 6,682,685). Regarding Claim 21, Gray shows that it is known to carry out a method for rotationally molding a plastic part (Column 5, lines 19-20), comprising adding a resinous material to a rotomold (Column 5, lines 25-26); cooling the rotomold, and removing the molded part from the rotomold (Column 6, lines 55-57). Gray does not show adding reinforcing fibers. Swain shows that it is known to carry out a method of rotational molding comprising adding reinforcing elements to the rotomold (Column 5, lines 18-30), and heating the rotomold such that the resinous material and reinforcing elements form a molded part including at least one wall having an outer surface and an inner surface, wherein the reinforcing elements are disposed substantially throughout the wall of the molded part (Column 4, lines 23-25; Column 5, lines 14-17; Column 6, lines 66-67). Swain and Gray are combinable because they are concerned with a similar technical field, namely, rotational molding processes. It would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made to add Swain's reinforcing elements to Gray's molding process in order to make the final product more robust.

Art Unit: 1732

Regarding Claim 22, Gray shows the process as claimed as discussed in the rejection of Claim 21 above, including a method wherein the resin in a thermoplastic (Column 1, lines 22-25), meeting applicant's claim.

Regarding Claim 23, Gray shows the process as claimed as discussed in the rejection of Claim 21 above, but he does not show specific reinforcing elements. Swain shows a rotational molding process wherein the reinforcing elements are carbon fibers (Column 4, lines 21-37). It would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made to use Swain's reinforcing carbon fibers in Gray's molding process in order to make the final product more robust.

Claim 24 is rejected under 35 U.S.C. 103(a) as being unpatentable over Gray and Swain, as applied to claims 21 and 23 above, further in view of Clark (U.S. Patent 6,004,652). Gray shows the process as claimed as discussed in the rejection of Claim 21 above, but he does not show protrusion of the fibers into an internal cavity of the molded part. Clark shows that it is known to form a planar article wherein the fibers protrude into an internal cavity of the molded part (Column 7, lines 34-42; Column 9, lines 31-45). Clark and Gray are combinable because they are concerned with a similar technical field, namely, molding processes which yield planar articles. It would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made to use Clark's protruding fibers in Gray's and Swain's molding process in order to form an article having specific arrangements of reinforcing fibers.

Claims 25 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gray and Swain, further in view of Bordener.

Regarding Claim 25, Gray shows the process as claimed as discussed in the rejection of Claim 21 above, but he does not show using adjustable edges. Bordener shows that it is known to carry out a method of forming panel structures (Abstract), comprising providing a panel mold element including a generally planar molding surface and distal edges (Column 2, lines 16-19), at least one edge member disposed on said generally planar molding surface (Column 2, lines 18-19), and at least one complimentary adjustable edge member disposed on said generally planar molding surface (Column 2, lines 22-23), said generally planar molding surface and edge members cooperatively defining at least a portion of a panel mold cavity (Column 2, lines 37-44). It would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made to use Bordener's adjustable edges in Gray's and Swain's molding process in order to make an adaptable mold surface which would be applicable to forming many types of final articles.

Regarding Claim 26, Gray shows the process as claimed as discussed in the rejection of Claims 21 and 25 above, including a method wherein the resinous material is thermoplastic (Column 1, lines 22-25), meeting applicant's claim.

Response to Arguments

Applicant's arguments, see the paper filed 16 August 2004, with respect to the rejection(s) of claim(s) 13-26 under Wallin have been fully considered and are persuasive.

Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Bordener.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Monica A Fontaine whose telephone number is 571-272-1198. The examiner can normally be reached on Monday-Friday 7:30am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mike Colaianni can be reached on 571-272-1196. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Maf
October 29, 2004



**MICHAEL P. COLAIANNI
SUPERVISORY PATENT EXAMINER**